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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,257	12/04/2003	Stefan Unverzagt	DT-6706	7785

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EXAMINER


SHARP, JEFFREY ANDREW

ART UNIT PAPER NUMBER

3677

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/728,257	Applicant(s) UNVERZAGT ET AL.	
	Examiner Jeffrey Sharp	Art Unit 3677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 25 October 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 2,5 and 10-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2, 5 and 10-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date. _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Status of Claims*

- [1] Claims 2, 5, and 10-13 are pending.

### *Specification*

- [2] The disclosure is objected to because of multiple errors and informalities. A few examples are:

Page 15, last line states: "*section 50.1 and 50.2*", and should be "*sections 50.1 and 50.2*" as shown in the second to last line.

Element identifier "56" shown in Figure 4 is not defined.

Element identifier "42" used for both "*rear engagement member*" and "*mounting rail*" (page 17).

- [3] The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, applications, or other information submitted for consideration by the Office, and MPEP § 609 subsection III A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Appropriate correction is required.

***Claim Objections***

[4] Claims 10-12 objected to because of multiple errors and informalities. A few examples are:

Claims 10-13 should read '*each having*' instead of "*having each*" on line 8

Claim 12 should read '*each have*' instead of "*have each*" on line 10.

Claim 12 a colon appears on line 3 instead of a semi-colon.

Claim 10 word "*has*" on line 10 should be '*have*'.

Claim 11 line 8, "*holdings*" should be '*holding*'.

Claim 13 line 8, "*holdings*" should be '*holding*'.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

[5] The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

[6] Claim 2 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It appears the applicant may have meant '*abut*' instead of "*about*" in line 3.

***Claim Rejections - 35 USC § 103***

- [7] The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

MPEP 2136.04 [R-1] states:

" IF THERE IS ANY DIFFERENCE IN THE INVENTIVE ENTITY, THE REFERENCE IS "BY ANOTHER. "Another" means other than applicants, In re Land, 368 F.2d 866, 151 USPQ 621 (CCPA 1966), in other words, a different inventive entity. The inventive entity is different if not all inventors are the same. The fact that the application and reference have one or more inventors in common is immaterial. Ex parte DesOrmeaux, 25 USPQ2d 2040 (Bd. Pat. App. & Inter. 1992) (The examiner made a 35 U.S.C. 102(e) rejection based on an issued U.S. patent to three inventors. The rejected application was a continuation-in-part of the issued parent with an extra inventor. The Board found that the patent was "by another" and thus could be used in a 35 U.S.C. 102(e) /103 rejection of the application.)"

In the instant case, inventor Ulrich Birnbaum, Kaufering (DE) shown on the Hoffmann et al. reference is not listed as an inventor in the submitted Oath and Declaration, and therefore, the inventive entity is considered "by another".

- [8] Claims 2 and 10-13 rejected under 35 U.S.C. 103(a) as being unpatentable over Hoffmann et al. US-2002/0098057 A1 in view of Tinnerman US-2,096,387 and Simmons US-2,328,587.

Hoffman et al. teaches:

A quick-mountable nut (2) capable of at least partially rotation-free, axial displacement relative to a threaded bolt (1), comprising a nut housing (5) having a central through-opening (6), and a springy holding member (4) at least partially located in the nut housing (5) and engaging in at least one screw thread (3), the central through-opening (6) being formed as a tapering radially

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inward, inner cone (7) for receiving the holding member (4), and the holding member (4) having two, resiliently movable relative to each other, holding sections (8,8') having each a **wall section** abutting a wall of the inner cone (7), wherein the holding sections (8,8') of the holding member (4) each has an annular middle portion (9) located in a radial plane of the threaded bolt (1) partially engaging along the screw threads (3) of the threaded bolt (1), and wherein the annular middle portion (9) is formed by an extending radially inward offset (paragraph [0042] lines 14-15, Claim 3).

Hoffman et al. does not disclose expressly the wall section that abuts the inner core (7) to **be an even wall section**.

Simmons teaches a resilient springy holding member (1) integral a quick-mountable nut (pg. 1 col. 1 lines 1-3), having two holding sections (22) -- each with annular middle portions (25) that engage with threads of a threaded bolt (26), and are offset to co-operate with the threads with optimal engagement. The wall sections taught by Simmons (22) have **even cross-sections** (Figs 16 and 17, page 3 col. 1 line 66 - col. 2 line 2). The purpose of the teeth taught by Simmons is to create a better tooth engagement than plain springy holding members of the prior art, similar to springy holding member (4) taught by the Hoffman et al. reference. Simmons anticipates many variations including stamped forms, and broadly interprets the holding sections.

Tinnerman teaches two springy holding sections (13) -- each with annular middle portions that engage with threads of a threaded bolt (25), and are offset to co-operate with the threads with optimal engagement. The wall sections taught by Tinnerman (12) have **even cross-sections** (Figure 3), can be conical (page 1 col. 2 lines 12-13) and can be configured to rest within a tapered cavity (22).

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At the time of invention, it would have been obvious to one of ordinary skill in the art to modify the springy holding member taught by Hoffman et al., to comprise the even wall sections as taught by Simmons, as an obvious matter of design choice of materials (see also, cited prior art reference US-1,764,950 Griner), as Simmons anticipates function equivalence regardless of cross-section.

Further, it would have been obvious to one of ordinary skill in the art modify the springy holding member taught by Hoffman et al., to comprise the conical offset annular holding sections as taught by Tinnerman, in order to: 1) provide a better contact with the threaded bolt, 2) provide a better bearing surface with the inwardly-tapering conical through opening (6) as shown in similar quick nuts of the prior art (e.g., guide tapers in Fullerton US-4,378,187 and Crowther US-1,944,595), 3) prevent misalignment with the threads, and/or 4) increase frictional engagement with the threads.

As for claim 11, Hoffman et al. teach a cover (13b) for covering the nut housing (5), and a wedge (24) supported on the cover (13b) and extending radially inward and insertable between free ends (17,17') of the holding sections (8,8') of the holding member (4). See Hoffman et al. claim 8.

As for claim 12, the holding sections (8,8') of the holding member (4) each have a cantilever arm (17,17'), the cantilever arms (17,17') being arranged opposite each other.

As for claim 13, the holding member is formed of a sheet metal by a combined cutting and bending process (Simmons page 1 col. 2 lines 6-7), and (Tinnerman page 1 col. 1 lines 47-49).

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As claim 2 is understood and definite, the holding sections of the holding member abut the wall of the inner cone over the entire surfaces of the holding sections.

[9] Claims 5 and 12 rejected under 35 U.S.C. 103(a) as being unpatentable over Hoffmann et al. US-2002/0098057 A1 in view of Tinnerman US-2,096,387 and Simmons US-2,328,587 as discussed above, in even further view of Blessing et al. US-6,305,889, Fullerton US-4,378,187, and Schertz US-3,352,341.

H v. T&S teaches all limitations of the instant claim 10 as discussed above; however, H v. T&S fails to disclose expressly the nut housing (5) having at **least one stop** for limiting an axial displacement of the holding member (4).

Blessing et al. teach **a stop** for limiting an axial displacement of a holding member(s) (col. 3 lines 6-12).

Fullerton also teaches **a stop** (flange inside of nut housing 230) for limiting an axial displacement of a holding member(s) (Figure 6)

Schertz also teaches **stops** (20; 16, 16') for limiting axial displacement of an internal holding member (col. 4 lines 16-20).

At the time of invention, it would have been obvious to one of ordinary skill in the art to modify the nut housing (5) taught by H v. T&S, to have the prior art stops taught by Blessing et al., Fullerton, and Schertz, in order to prevent the holding member from too much axial movement during the insertion of the bolt, or when not engaged with the bolt.

As for claim 12, H v. T&S teaches opposed cantilever arms that are not crossed. Blessing et al. further teach the holding sections (61) of the springy holding member (60) to each



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have a cantilever arm (62), the cantilever arms (62) being arranged opposite each other and crossed (Blessing et al. Figure 6, col. 6 lines 9-14).

### *Conclusion*

[10] The prior art made of record and not relied upon is considered pertinent to applicant's disclosure is as follows:

US-1,764,950 Griner teaches that circular wire can be alternatively formed from flat stock to provide essentially the same function as a matter of design choice, in order to provide an even wall surface abutment (Figure 2 and Figure 5, page 2 lines 35-38).

US-2,156,002 Tinnerman teaches a body made of hard or soft steel (page 1 lines 35-40), having two diametrically-opposed holding sections (13) that each have an even wall section and annular middle portion, which could abut a wall of an inner cone (Figure 5). The holding sections are offset, so that "when the fastening member is tightened, the segments between the notches have a tendency to draw in towards the root of the thread on the threaded member, thereby giving additional frictional contact so as to prevent ready loosening" (page 1 line 51 - page 2 line1).

US-2,397,238 Brose teaches a wing nut 8 of the prior art that incorporates similar radially inwardly offset means to resiliently capture and retain a threaded bolt (13). The nut has two, resiliently moveable holding sections (page 1 col. 1 lines 3-6, elements 9 and 10) to grasp, hold, and lock the threaded member.

US-685,927 McNutt teaches teeth portions (11) on a resilient springy holding member (9) to better engage the threaded bolt (5).

US-1, 944,595 Crowther teaches two opposed holding sections (20) of even wall thickness, which engage threads (8) of bolt (7).

US-2,344,423 Simmons teaches a speed nut having two opposed springy holding sections (a, a') with annular portions that engage a threaded bolt (B).

US-2,342,312 Tinnerman teaches two opposed conical holding sections (24) that have annular middle portions.

[11] Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey Sharp whose telephone number is (703) 305-2693. The examiner can normally be reached on 7:30 am - 5:00 pm Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J.J. Swann can be reached on (703) 306-4115. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

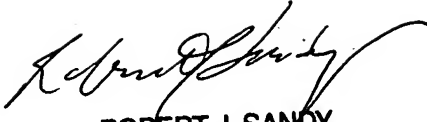
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JAS



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PRIMARY EXAMINER